**bs-4512R** **[ Primary Antibody ]**

# TUBB3 (Neuronal Marker) Rabbit pAb

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## DATASHEET

**Host:** Rabbit **Isotype:** IgG

**Clonality:** Polyclonal

**GeneID:** 10381 **SWISS:** Q13509

**Target:** TUBB3 (Neuronal Marker)

**Immunogen:** KLH conjugated synthetic peptide derived from human beta III Tubulin: 401-450/450.

**Purification:** affinity purified by Protein A

**Concentration:** 1mg/ml

**Storage:** 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

**Background:** Neuronal Marker
Beta III tubulin is abundant in the central and peripheral nervous systems (CNS and PNS) where it is prominently expressed during fetal and postnatal development. As exemplified in cerebellar and sympathoadrenal neurogenesis, the distribution of beta III is neuron-associated, exhibiting distinct temporospatial gradients according to the regional neuroepithelia of origin. However, transient expression of this protein is also present in the subventricular zones of the CNS comprising putative neuronal- and/or glial precursor cells, as well as in Kulchitsky neuroendocrine cells of the fetal respiratory epithelium. This temporally restricted, potentially non-neuronal expression may have implications in the identification of presumptive neurons derived from embryonic stem cells.

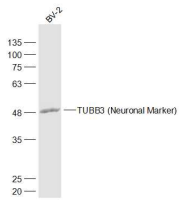
**Applications:** **WB** (1:500-2000)
**IHC-P** (1:100-500)
**IHC-F** (1:100-500)
**IF** (1:200-800)
**Flow-Cyt** (1μg/Test)
**ICC/IF** (1:100)

**Reactivity:** Human, Mouse, Rat (predicted: Rabbit, Dog)

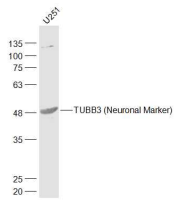
**Predicted MW.:** 50-55 kDa

**Subcellular Location:** Cytoplasm

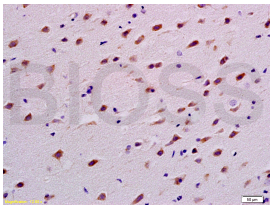
## VALIDATION IMAGES



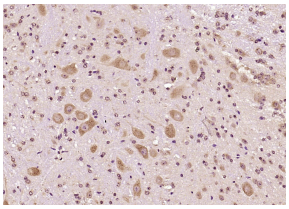

Sample: BV-2(Rat) Cell Lysate at 30 ug Primary: Anti-TUBB3 (Neuronal Marker) (bs-4512R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 50-55 kD Observed band size: 50 kD

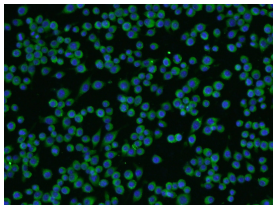


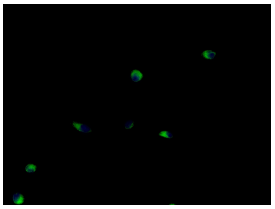

Sample: U251(Human) Cell Lysate at 30 ug Primary: Anti-TUBB3 (Neuronal Marker) (bs-4512R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 50-55 kD Observed band size: 50 kD



Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer ( 0.01M, pH 6.0 ), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min; Incubation: Anti-TUBB3/beta III Tubulin(Neuronal Marker) Polyclonal Antibody, Unconjugated(bs-4512R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining





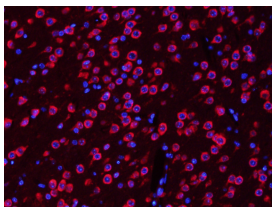


Important Note: This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

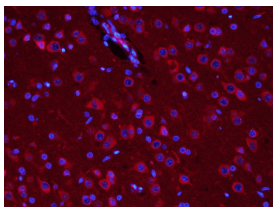
Paraformaldehyde-fixed, paraffin embedded (mouse cerebellum); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (TUBB3 (Neuronal Marker)) Polyclonal Antibody, Unconjugated (bs-4512R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

Tissue/cell: BV-2 cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for 20 min; Blocking buffer (normal goat serum, C-0005) at 37°C for 20 min; Antibody incubation with (TUBB3) Polyclonal Antibody, Unconjugated (bs-4512R) 1:200, 90 minutes at 37°C; followed by a conjugated Goat Anti-Rabbit IgG antibody (bs-0295G-FITC) at 37°C for 90 minutes, DAPI (5ug/ml, blue, C-0033) was used to stain the cell nuclei.

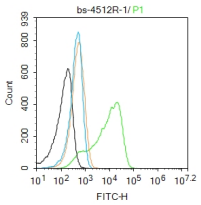
SH-SY5Y cell; 4% Paraformaldehyde-fixed; Ice-cold methanol at -20°C for 20 min; Blocking buffer (normal goat serum, C-0005) at 37°C for 20 min; Antibody incubation with (TUBB3) polyclonal Antibody, Unconjugated (bs-4512R) 1:100, 90 minutes at 37°C; followed by a FITC conjugated Goat Anti-Rabbit IgG antibody at 37°C for 90 minutes, DAPI (blue, C02-04002) was used to stain the cell nuclei.



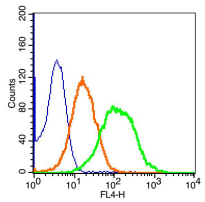
Paraformaldehyde-fixed, paraffin embedded (Mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (TUBB3) Polyclonal Antibody, Unconjugated (bs-4512R) at 1:400 overnight at 4°C, followed by a conjugated Goat Anti-Rabbit IgG antibody (bs-0295G-AF594) for 90 minutes, and DAPI for nuclei staining.



Paraformaldehyde-fixed, paraffin embedded (Rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (TUBB3) Polyclonal Antibody, Unconjugated (bs-4512R) at 1:400 overnight at 4°C, followed by a conjugated Goat Anti-Rabbit IgG antibody (bs-0295G-AF594) for 90 minutes, and DAPI for nuclei staining.




Blank control:SH-SY5Y. Primary Antibody (green line): Rabbit Anti-TUBB3 (Neuronal Marker) antibody (bs-4512R) Dilution: 1ug/Test; Secondary Antibody : Goat anti-rabbit IgG-FITC Dilution: 0.5ug/Test. Protocol The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 90% ice-cold methanol for 20 min at -20°C.The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.




Blank control(blue): U-87MG Cells(fixed with 2% paraformaldehyde (10 min)). P rimary Antibody: Rabbit Anti-MGLUR3/AF647 Conjugated antibody (bs-4512R/AF647), Dilution: 1μg in 100 μL 1X PBS containing 0.5% BSA; Isotype Control Antibody: Rabbit IgG/AF647(orange) ,used under the same conditions.

## SELECTED CITATIONS

- **[IF=11.036]** Yanhong Wang. et al. Programming of Regulatory T Cells In Situ for Nerve Regeneration and Long-Term Patency of Vascular Grafts. Research. 2022 Jul 19;2022:9826426 IF ;Rat. 35966759
- **[IF=4.46]** Song, Zhi‐Qi, et al. "Overexpression of BAT3 Alleviates Prion Protein Fragment PrP106‐126‐Induced Neuronal Apoptosis." CNS Neuroscience & Therapeutics (2014). ICC ;Human&Rat. 24629137
- **[IF=2.21]** Can Sezer. et al. Neuroprotective Effects of Milrinone on Acute Traumatic Brain İnjury. WORLD NEUROSURG. 2022 Nov;: IHC ;Mouse. 36403936
- **[IF=2.1]** Gökten Murat. et al. Beyond expectations: safinamide’ s unprecedented neuroprotective impact on acute spinal cord injury. EUR J TRAUMA EMERG S. 2024 Apr;:1-9 IHC ;Rat. 38602541
- **[IF=1.26]** Bugueño, Juan, et al. "Canine mesenchymal stem cell bone regenerative capacity is regulated by site-specific

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